

## COURSE SYLLABUS

### **Advanced Microeconomics, 7.5 credits**

*Advanced Microeconomics, 7,5 högskolepoäng*

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<b>Course Code:</b>	JMCR21	<b>Education Cycle:</b>	Second-cycle level
<b>Confirmed by:</b>	Council for Undergraduate and Masters Education May 28, 2020	<b>Disciplinary domain:</b>	Social sciences (75%) and natural sciences (25%)
<b>Revised by:</b>	Mar 1, 2021	<b>Subject group:</b>	NA1
<b>Valid From:</b>	Aug 23, 2021	<b>Specialised in:</b>	A1N
<b>Version:</b>	2	<b>Main field of study:</b>	Economics

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### **Intended Learning Outcomes (ILO)**

On completion of the course the student will be able to:

Knowledge and understanding

1. explain strategic interactions in noncooperative games.
2. describe market outcomes with market power and externalities.
3. outline consequences of asymmetric information (e.g., adverse selection and principal-agent problems).

Skills and abilities

4. formulate formal descriptions of markets and strategic interactions.
5. apply game theoretical concepts to analyze market failures.
6. interpret contracts and their incentive properties using microeconomic analyses and mechanism design.
7. explain the general role that adverse selection and moral hazard play in the interactions among economic agents.

Judgement and approach

8. analyze the market outcomes when changing key variables such as market power or information structures.
9. reflect on the welfare implications associated with different market structures and conditions, by relating to theories on market power, externalities, and asymmetric information.

### **Contents**

The course captures standard concepts of noncooperative game theory and applies these concepts to describe and analyze market failures. Topics covered in the course are, e.g.:

- Static and dynamic games
- External effects
- Monopoly pricing
- Adverse selection, signaling, screening
- Principal-agent problems

## Connection to Research and Practice

The microeconomic and game theoretical methods that are discussed in the course are state-of-the-art research methods. They allow students to understand theoretical models that are used in articles published in leading academic journals. The course provides links to such articles. By enabling students to access knowledge in academic journals, the course content aids students' abilities to enhance their own learning experience.

Imperfect markets, asymmetric information, and incentive problems lead to market failures and, therefore, inefficient outcomes. The described issues affect, e.g., production and recruitment decisions of firms and have important implications for the design of management contracts and government interventions, applications of which are dealt with in the course. These aspects have a highly practical relevance in many work environments.

## Type of instruction

Lectures, exercises, and practice workshops

The teaching is conducted in English.

## Prerequisites

The applicant must hold the minimum of a Bachelor's degree (i.e. the equivalent of 180 ECTS credits at an accredited university) with at least 90 credits in business administration, economics, computer engineering, industrial engineering and management, or equivalent (or the equivalent).

## Examination and grades

The course is graded A, B, C, D, E, FX or F.

Individual written exam (ILOs: 1-9) representing 6.5 credits.

Group assignment (ILOs: 1-9) representing 1 credit.

Registration of examination:

Name of the Test	Value	Grading
Individual written exam <sup>1</sup>	6.5 credits	A/B/C/D/E/FX/F
Group assignment <sup>1</sup>	1 credit	U/G

<sup>1</sup> 1 All parts of compulsory examination in the course must be passed with a passing grade (A-E or G) before a final grade can be set. The final grade of the course is determined by the sum of total points for the individual written exam (0-100 points). The grade is set in accordance with JIBS grading policy.

## Course evaluation

It is the responsibility of the examiner to ensure that each course is evaluated. There must be course evaluators identified among the students. The evaluation is carried out continuously as well as at the end of the course, through a survey. After the course the course Examiner meets with student evaluators to discuss the survey results and possible improvements. A summary report is also created. The report is followed up by program directors and discussed with faculty

and relevant others (e.g. Associate Dean of Education, Associate Dean of faculty, Director of PhD Candidates, Dean, or Director of Studies). The next time the course runs, students should be informed of any measures taken to improve the course based on the previous course evaluation.

### **Other information**

#### Academic integrity

JIBS students are expected to maintain a strong academic integrity. This implies to behave within the boundaries of academic rules and expectations relating to all types of teaching and examination.

Copying someone else's work is a particularly serious offence and can lead to disciplinary action. When you copy someone else's work, you are plagiarizing. You must not copy sections of work (such as paragraphs, diagrams, tables and words) from any other person, including another student or any other author. Cutting and pasting is a clear example of plagiarism. There is a workshop and online resources to assist you in not plagiarizing called the Interactive Anti-Plagiarism Guide.

Other forms of breaking academic integrity include (but are not limited to) adding your name to a project you did not work on (or allowing someone to add their name), cheating on an examination, helping other students to cheat and submitting other students work as your own, and using non-allowed electronic equipment during an examination. All of these make you liable to disciplinary action.

### **Course literature**

#### Literature

- Mas-Colell, A., Whinston, M. D. and J. R. Green (1995). Microeconomic Theory, Oxford University Press, Oxford et al.
- A list of additional articles will be supplied at the course introduction.